In re Patent Application of GORSUCH ET AL.

Serial No. Not Yet Assigned

Filed: Herewith

In the Specification:

Please replace the paragraph beginning at page 1, line 2, with the following rewritten paragraph:

This application is a Continuation of pending U.S. Application No. 10/345,791 filed January 16, 2003 entitled "Dynamic Bandwidth Allocation to Transmit a Wireless Protocol Across a Code Division Multiple Access (CDMA) Radio Link, which is a Continuation of U.S. Application No. 09/596,425 filed June 19, 2000, now U.S. Patent No. 6,526,281 entitled "Dynamic Bandwidth Allocation to Transmit a Wireless Protocol Across a Code Division Multiple Access (CDMA) Radio Link," which in turn is a Continuation of U.S. Application No. 08/992,760 filed December 17, 1997, now U.S. Patent No. 6,081,536 entitled "Dynamic Bandwidth Allocation to Transmit a Wireless Protocol Across a Code Division Multiple Access (CDMA) Radio Link," which itself claims the benefit of U.S. Provisional Application No. 60/050,338 filed June 20, 1997 entitled "Dynamic Bandwidth Allocation to Transmit a Wireless Protocol Across a Code Division Multiple Access (CDMA) Radio Link," and U.S. Provisional Application No. 60/050,277 filed June 20, 1997 entitled "Protocol Conversion and Bandwidth Reduction Technique Providing Multiple nB+D ISDN Basic Rate Interface Links Over a Wireless Code Division Multiple Access Communication System," the entire teachings of all of which are incorporated herein by reference.

Please delete the Summary of the Invention section beginning on page 4, line 6 in its entirety and add the following Summary of the Invention section:

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SUMMARY OF THE INVENTION

In view of the foregoing background, an object of the present invention is to provide high speed data and voice service over standard wireless connections via a unique integration of ISDN protocols and existing cellular signaling such as is available with Code Division Multiple Access (CDMA) type digital cellular systems.

This and other objects, advantages and features in accordance with the present invention are provided by a method for operating a CDMA user device comprising establishing a communication session with at least one base station, with the communication session comprising a plurality of layers including a physical layer. A service configuration may be negotiated with the at least one base station, with the user device receiving at least one assigned subchannel from the at least one base station.

A physical layer connection may be established with the at least one base station on the at least one assigned subchannel, with the physical layer connection corresponding to the physical layer. The method may further comprises releasing the at least one assigned subchannel so that the physical layer connection is terminated, and maintaining a state of at least one other layer during the communication session after termination of the physical layer.

The at least one assigned subchannel may comprise a plurality of assigned subchannels. The releasing may occur when the user device does not have any data to transmit. The method may further comprise releasing all assigned subchannels so that the user device is in a dormant state.

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A second service configuration may be negotiated with the at least one base station so that the user device receives at least one second assigned subchannel. The second negotiation may be performed after the user device has been in the dormant state.

Negotiating the second service configuration does not require reestablishment of the state of the at least one other layer being maintained during the communication session.

Negotiating the service configuration may also comprise communicating a requested bandwidth allocation to the base station. The assigned subchannel may be less than the requested bandwidth. The at least one assigned subchannel may comprise a first assigned subchannel having a first bandwidth, and a second assigned subchannel having a second bandwidth less than the first bandwidth. The user device transmits voice and data on the at least one assigned subchannel.

The method may further comprise monitoring a data buffer associated with the second service connection. In addition, the method may further comprise monitoring a data buffer associated with the physical layer connection. The plurality of layers may include a network layer, and the state of the at least one other layer being maintained during the communication session is the network layer. A bandwidth associated with the service connection may be different than a bandwidth associated with the second service configuration.